CLAIMS

1. A system for steering a beam of electromagnetic energy comprising:

first means for receiving an input wavefront of electromagnetic energy along a first axis, said first means including means for refracting said input wavefront as an output wavefront along a second axis at an angle with respect to said first axis in response to an applied voltage;

second means for providing said voltage in response to a control signal; and

third means for providing said control signal.

2. The invention of Claim 1 wherein the index of refraction of said first means varies in response to said applied voltage.

3. The invention of Claim 2 wherein said first means is a liquid crystal device.

4. The invention of Claim 3 wherein said first means includes an array of liquid crystal devices.

5. The invention of Claim 1 further including means for restoring color balance to said output wavefront.

6. The invention of Claim 5 wherein said means for restoring color balance to said output wavefront includes at least one optical wedge.

7. The invention of Claim 6 wherein said means for restoring color balance to said output wavefront includes first and second counter-rotating optical wedges.

8. The invention of Claim 7 further including a mirror for compensating a wavefront output by said first and second counter-rotating optical wedges.

9. The invention of Claim 8 further including an imaging lens.

10. The invention of Claim 1 wherein said third means is a microprocessor.

11. A system for steering a beam of electromagnetic energy comprising:

an array of liquid crystal devices for receiving an input wavefront of electromagnetic energy along a first axis and refracting said input wavefront as an output wavefront along a second axis at an angle with respect to said first axis in response to an applied voltage;

a microprocessor for providing said voltage;

first and second counter-rotating wedges, responsive to said microprocessor for processing said output wavefront;

a mirror, responsive to said microprocessor, for reflecting a wavefront output by said first and second counter-rotating optical wedges; and

means for outputting an image reflected by said mirror.

12. The invention of Claim 11 wherein the index of refraction of said array varies in response to said applied voltage.

13. A method for steering a beam of electromagnetic energy comprising the steps of:

providing a control signal;

providing a voltage in response to said control signal; and

receiving an input wavefront of electromagnetic energy along a first axis and refracting said input wavefront as an output wavefront along a second axis at an angle with respect to said first axis in response to said voltage.

14. A method for steering multiple beams of electromagnetic energy comprising the steps of:

providing control signals;

providing a plurality of voltages in response to said control signals; and

receiving multiple input wavefronts of electromagnetic energy along a first axis and refracting each said input wavefronts as an output wavefront along a second axis at angles with respect to said first axis in response to said voltages.